

Collect

User's Guide



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Collect

User's Guide

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Kaye Instruments, Inc.
15 De Angelo Drive
Bedford, MA 01730
(617) 275-0300
FAX (617) 275-9024

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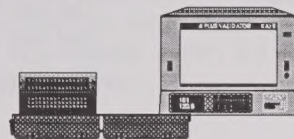
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Getting Started



Section 1

The Collect program serves two purposes. It

1. collects data from Kaye hardware and displays it on screen in digital, bar graph or trend form, and
2. writes the data to disk in one of several file formats: Excel™; Lotus 1-2-3® v. 3.0 or higher; Lotus 1-2-3 v. 2.0 to 2.4; or Comma Separated Values (CSV).

As soon as you start the program, it begins collecting all the data at the unit at 10-second intervals. Once you define the data you want to look at, you can view it in displays that are automatically updated every 10 seconds. When you turn on File Write, the program writes the selected data to your hard drive or a floppy disk, at an interval or on a condition that you specify.

By synchronizing the File Write interval with the timer used to trigger reports at the Kaye hardware, you can import data into your spreadsheet that is identical to what is in the printed report, with the identical time stamp. Since the Collect program is automatic, you do not have to transfer data manually from a printout to a spreadsheet, or use intermediary software programs to capture and convert the data.

The Collect program monitors a single Digistrip 4 or 4 Plus, 4 Plus Validator, Portable Validator, Portable Certifier or Portable Performer.

About the guide

The following typographic conventions are designed to help you find and interpret information easily:

Convention

bold

CAPITALS

SMALL CAPITALS

KEY1 + KEY2

Meaning

Type anything in bold exactly as it appears. For example, if you are asked to type **a:install**, type all the characters, including the colon, exactly as shown.

Directory names, file names and acronyms

Key names. For example, F2, ALT, Y.

A plus sign (+) between key names means hold down the first key while you press the second, then release both keys.

Hardware requirements and installation

Collect runs on the IBM® PC and Personal System/2® and compatibles, including notebook and laptop computers with 80386 processors, that meet these minimum hardware requirements:

- Hard disk drive
- One floppy disk drive, 3½" or 5¼"
- 640 KB RAM
- One serial I/O communications port
- EGA or VGA graphics with appropriate monitor
- MS-DOS® or IBM DOS 3.2 or higher

Setting the Kaye hardware baud rate

Collect checks the baud rate at the Kaye hardware as it establishes communications, and can communicate at 9600, 4800 or 1200 baud. It is recommended that you run the program at 9600.

The baud rate on Kaye portable units is fixed at 9600, so you do not need to make any adjustments.

The Digistrip 4, 4 Plus and 4 Plus Validator baud rate is also factory set to 9600. Check DIP Switch S7 to make sure the setting is correct. The switch is located on the Interface panel at the back of the Digistrip, between the two rows of terminals. Slides 1-3 specify the baud rate, and should be set as follows:

<i>Baud rate</i>	<i>Slides</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
9600	ON	ON	OFF

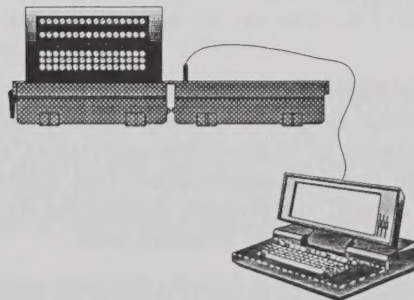
Verifying TRM mode at the Kaye hardware

The communications port on Kaye portable units and Digi 4 and 4 Plus models is factory set for Terminal (TRM) Protocol. To verify the setting, make sure that DIP Switch 2 on the Data Acquisition (DA) board has Slide 1 On.

In the portable units, the DA board is mounted on top of the scanner board. DIP Switch 2 is at the top left of the board. In the Digistrip 4, 4 Plus and 4 Plus Validator units, the DA board is on the left side of the chassis. DIP Switch S2 is accessible through a cutout in the cover plate.

Wiring the communications link

Connect the Kaye hardware RS-232 port to COM1 on your computer or to the Kaye Calibration Interface, using the cable supplied with The Programmer or the Kaye Calibration Interface.



Installing and starting Collect

Insert the program diskette in floppy drive A. At the hard drive prompt, enter:

a:install

At the prompt, enter your name and company, then press ESC. When you are prompted for monitor type, enter C for color or M for monochrome. Collect runs in color or black and white, depending on your selection. Follow the prompts to complete the installation.

NOTE: Collect is licensed for use on a single computer. You are, however, encouraged to make a backup copy for your own use. Do not make a copy until after you have installed Collect on your hard disk.

If your computer is configured for a mouse on COM1, delete the mouse driver from your AUTOEXEC.BAT or CONFIG.SYS file, and power the computer on and off.

To start the program, at the Collect subdirectory enter:

collect

If the Kaye Programmer is installed, you can start Collect from the Operator Menu. The menu varies slightly depending on which version of the Programmer you have. On some menus, you select "COLLECT Utility," and on others you select "Run Test and Collect."

Establishing communications

Collect automatically communicates via COM1. As the program attempts to establish communications, a red check mark flashes next to the Communications Port 1 field. If the attempt is successful, the program displays the Kaye hardware unit's baud rate, unit ID, and firmware level.

Collect checks to see if there is an Intelligent Probe connected via COM1. If so, it reads the probe value in °C, includes it on data

```

|| COLLECT 2.18 ||

Establishing Communications

J Baud Rate                      9600
J Unit Identifier                 81 at 10 sec
J Unit Firmware Level            SS225 V2.24
J Kaye Family Type               D4plusM Unit
J Reading Labels                 816 Ch 816
J Programming Cfg Codes          837
J Communications Port 1           Installed
J Identifier OVEHI
J IRTD Probe Enabled             881, 9600
J Temperature Reference Standard S/N 10183

Kaye

Trying Parameters

```

displays, trends it on the live trend display, and writes it to the data file. It looks for a probe *only* on COM1.

At the Establishing Communications screen, Collect searches for Probe Addresses 01, 02 or 03 at baud rates 9600, 4800, 2400 or 1200. The program establishes communications with the first probe it finds, indicating the address and baud rate on screen. The probe is identified as "Temperature Reference Standard, S/N nnnnn." Since Collect begins communicating with the first probe it finds, if you have more than one probe connected via the Kaye Calibration Interface and you want to see the value at Probe 02, you must disconnect Probe 01.

(If you are using Collect with a standard Digistrip, and there is a password at the Digi, you are prompted for it. Collect stores the password, and the next time you start the program it compares the password with the one at the Digi. If they match, Collect continues the process of establishing communications.)

The program reads the channel labels at the Kaye hardware, and stores them to display or transmit with the data. It then configures Report 3 for its own use by programming Configuration Codes 030-

037. (If you had previously configured Report 3, it will be overwritten.) The report is triggered at 10-second intervals by Timer 15, and includes Channels 101 to 816 and Relays 41-48. The Kaye hardware holds 10 reports in its report buffer, and deletes the oldest.

Collect immediately begins collecting the data from the report buffer. Data is collected every 10 seconds, although it is not written to a file until you define the file and turn on File Write with ALT+S.

If the program is unsuccessful in establishing communications with the hardware, it automatically goes into off-line mode. The message "Off-Line Mode" is displayed in the upper right corner of the menu.

Re-establishing communications

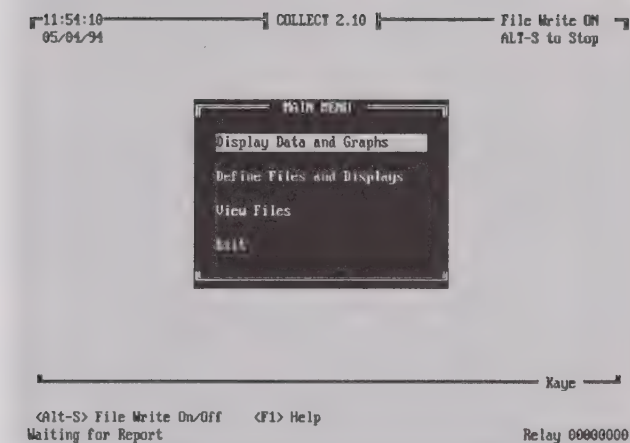
When Collect cannot communicate with the hardware (for example, if your cables are disconnected, or if the hardware loses power for more than 20 seconds), you see the message, "Trying to re-establish communications. Please wait. . ." Once communications are restored, Collect restarts data collection and re-activates File Write in Append mode, if File Write was active before communication was interrupted.

If it cannot re-establish communications immediately, Collect automatically retries every five minutes.

To re-initiate communications manually, press ALT+I. You can also exit and restart the program.

The Main Menu

If Collect is communicating, when the Main Menu appears you see the "Reading data" message during the time a report is being collected. When all available reports are collected, you see "Waiting for Report." A new report is triggered and collected every 10 seconds.



At the Main Menu and the data displays, the time of the most recently collected report and the date are displayed at the upper left of the screen. At the upper right, the screen displays the File Write status (ON or OFF). If you have configured a file, you can turn File Write ON from the menu with ALT+S. At the lower right, the screen shows the 1 or 0 (On or Off) status of the Kaye hardware relay logic bits 41-48. The logic bits can be used to trigger File Write (see *Section 2, Defining Files and Displays*).

Menu selections

There are four menu selections. The first, DISPLAY DATA and GRAPHS, is on-line, while the rest are off-line.

Select DEFINE FILES AND DISPLAYS to define up to three separate files, each containing up to three rows of channel data, and set an interval or specify a relay for writing the files to disk. At this screen you also specify the file format (Excel, Lotus 3, Lotus 2 or CSV), enable or disable File Write and choose Overwrite or Append for individual files, specify Backup, choose a printer, and define the destination drive and path for the files.

Select **DISPLAY DATA** and **GRAPHS** to look at the data. Collect reads the report buffer every 10 seconds and displays the data on screen in digital, bar graph or trend format. You can cycle through displays of three separate files plus a summary of all channels assigned to a file. You do not have to turn **File Write ON** to view the data.

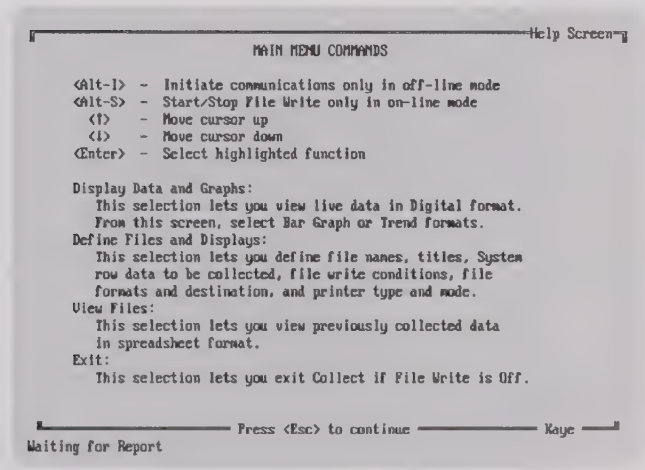
When **File Write** is **ON**, Collect writes the data to files at the interval you specified, when the relay you specified turns on, or at the specified interval but only when the relay is on (see the section on **Defining Files and Displays**). New data is appended to the files unless you specified **Overwrite**. You cannot access an off-line function while **File Write** is on.

Select **VIEW FILES** for a directory of files with the date and time last written and the file size. To view the data stored in any file, simply select the file. The data is shown on screen in a format similar to the way it will appear in your spreadsheet, with the report title and **ID** information at the top, channel labels, and a time stamp for each set of values.

Select **EXIT** to quit Collect. **File Write** must be **OFF**. The exit may not be immediate if the program is in the process of collecting data from the data acquisition unit's report buffer.

Help

At any Collect screen, press F1 for a list of key commands.



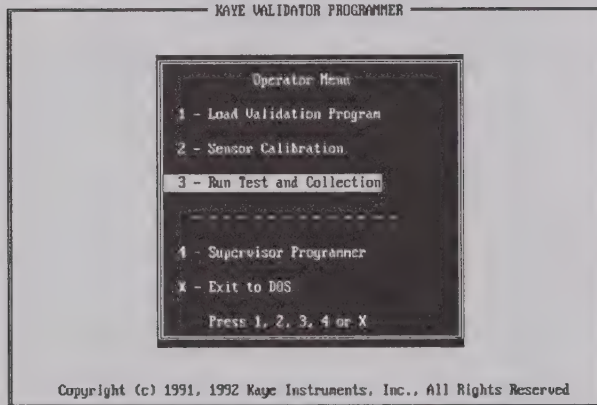
On the prompt line of all screens where you enter data, there are help messages for each data entry field.

Collect and the Programmer

If the Kaye Programmer v.3.0 or higher is installed on your PC, you can start Collect from any directory prompt by entering

```
collect
or
kpgm
```

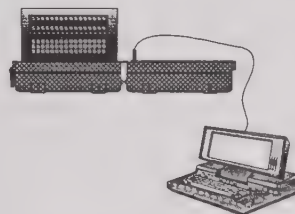
The Programmer Operator Menu appears. The menu varies slightly depending on which version of the Programmer you have. One version looks like this:



On the above menu, select "Run Test and Collection." At other menus, select "COLLECT Utility."

When you exit Collect, you return to this menu. Select "Exit to DOS."

Defining files and displays



Section 2

At the Main Menu, select DEFINE FILES AND DISPLAYS to specify:

- names of up to 3 Collect files
- titles
- the channel rows collected from the Kaye hardware
- interval and/or a relay for writing the data to files
- overwrite or append for individual files
- File Write enabled or disabled for individual files
- backup for all files
- format (Excel, Lotus 3, Lotus 2 or CSV) for all files
- printer (Epson or HP Laserjet) and mode (A or M) for trends
- file drive and path

```
----- Define Files and Displays -----
File 1 File name PENETR      Rows 1 2 3   Interval 30 SEC   Relay 00
Title 1                      Kaye Instruments, Inc.
Title 2                      Sample Penetration Report/File

File 2 File name             Rows 0 0 0   Interval 00 MIN   Relay 00
Title 1
Title 2

File 3 File name             Rows 0 0 0   Interval 00 MIN   Relay 00
Title 1
Title 2

File 1: Overwrite Y   Enable Y           File Format L2
File 2: Overwrite N   Enable N           Backup Files Y
File 3: Overwrite N   Enable N           Printer: Type J   Mode M
File Drive and Path :
C:\COLLECT\DATA                                           Test Ver A

Enter L (HP II emulation) ,E (Epson Emulation) OR N (No printer).
<Tab> Next field  <Back Tab> Previous  ↑ Up  ↓ Down  <F1> Help  <Esc> Exit
```

If the program is collecting a report from the Kaye hardware, there is a short delay before you enter the **DEFINE FILES AND DISPLAYS** function.

DEFINE FILES AND DISPLAYS is an off-line function. File Write must be turned off in order for you to access this function. While you are configuring the files, Collect does not read the report buffer.

Editing commands

At the **DEFINE FILES AND DISPLAYS** screen, press F1 for a help screen showing the editing commands.

SCREEN EDITING COMMANDS			
Enter	- Next field	↓	- Next line
Tab	- Next field	↑	- Previous line
Bk Tab	- Previous field	Esc	- Save edits, exit to Main Menu
FIELD EDITING COMMANDS			
→	- Right within field	Ins	- Overwrite character
←	- Left within field	Del	- Delete character at cursor
Home	- Start of field	Bksp	- Delete previous character
End	- End of field	Ctrl-Y	- Delete field
Alt-R - Restore original text			
Press Esc to Exit			

Press **ESC** to return to the **DEFINE FILES AND DISPLAYS** screen.

For every field on the screen, there is a help message on the prompt line.

Data entry fields

For each of the three Collect files, you make several entries that apply to the individual file. In addition, you make entries in four fields that apply to all files.

File-specific

The following fields apply to individual files.

File name. Enter up to 6 characters. Collect automatically gives the files a PRN extension.

Note to Lotus 1-2-3, v. 2.0 to 2.4 users: When Collect writes the data in Lotus 2 format, it actually writes to *up to three* PRN files, appending a *_1*, *_2* or *_3* to the file name you specify. Each subfile contains data from one row of channels. Collect does this to accommodate 1-2-3 v.2 data format requirements.

For example, suppose you name File 1 PENETR, as shown on the sample screen. You assign channel rows 100, 200 and 300 to the file. When Collect writes that file to disk, it creates PENETR_1.PRN to hold data from Row 100, PENETR_2.PRN to hold data from Row 200, and PENETR_3.PRN to hold data from Row 300.

Files written in Lotus 3 or Excel format hold data from three rows.

Rows. Enter a channel row number **1-8** or **0** to disable. In each file, you can include data from up to 3 rows of channels. You can assign the same rows of data to separate files.

Interval. Specify a time interval in seconds, minutes or hours to control how often the file is written to disk. When you specify an interval without specifying a relay (00 in the relay field), the file is written at the interval. When you specify both an interval and a relay, the file is written at the interval only when the relay is on.

There are two fields for Interval: 1) two-digit numeric, and 2) three-character unit.

At the first field, enter **10, 20, 30 (SEC)**, **01, 05, 15, 20, 30 (MIN)**, **01-23 (HR)**, or **00** to disable the interval.

At the second field, enter **SEC**, **MIN** or **HR**.

Collect writes to a file on the even hour, minute or fraction of a minute (10, 20 or 30 seconds). For example, if you select a 20-second interval and turn File Write on at 12:00:03, the file is written initially at 12:00:10, after the next 10-second data collection, and then at 12:00:20, 12:00:40, 12:01:00, 12:01:20, etc. Appendix A shows several sample intervals with corresponding File Write schedules.

SYNCHRONIZING PRINTED REPORTS WITH COLLECT FILES

If the Collect files are written at a 10, 20 or 30-second interval or every minute, and the Kaye hardware report is triggered at the same interval, the time stamps will automatically synchronize. This is because the Kaye Programmer, when it loads a program to the hardware, sets all timer reset times to real time plus two minutes, on the minute (00 seconds).

If you select a File Write interval other than 10, 20 or 30 seconds or 1 minute, use the Programmer to specify a system timer to trigger the report at the Kaye hardware. Set the timer interval equal to the Collect File Write interval. You will also need to specify an initial reset time for the timer. The reset time is automatically updated whenever you load the program into the Kaye hardware. (Remember to select a report other than Report 3, which is used by Collect.)

Relay. Enter a relay **41-48**, or **00** to disable. (The relay is one of the internal logic bits in the hardware.) When the relay turns on, the data is written to the disk file. If you also specify an interval, the file is written at the end of the interval only when the relay is on. See Appendix B for further information on using a relay to turn on File Write.

Relay triggers are usually turned on when a limit is exceeded or when a series of user-specified conditions are satisfied. They normally remain on for at least 10 or 20 seconds. However, to guarantee that the relay remains on long enough to trigger a report, you can program a Flip Flop function at the Kaye hardware to latch the relay on.

Title 1 and Title 2. Enter a title and subtitle for the file. Each field accepts up to 61 characters. The two lines of text appear at the top of the digital data display screens, and are written to the file. They will appear in the spreadsheet at the top of the report.

Overwrite. Enter **Y** to overwrite existing data in the file, or **N** to append. **N** is the default.

NOTE: Overwrite does not apply when Collect restarts data collection after a power loss.

Enable. Enter **Y** to write this file to disk when File Write is On, or **N** to disable. **Y** is the default.

Common fields

The following fields on the Define Files and Displays screen apply to all three files.

File Format. Enter **EX** (Microsoft Excel), **L3** (Lotus 1-2-3, v3.0 and higher), **L2** (Lotus 1-2-3, v2.X), or **CS** (Comma Separated Values).

When you specify **EX**, **L3** or **CS**, the text files each contain 48 channels (3 rows) of data. When you specify **L2**, the Collect program creates three subfiles of the same name with **_1**, **_2** or **_3** appended, each containing 16 channels (1 row) of data.

Backup Files. Enter **Y** to create a backup file with the extension **.BAK**. A backup file is then automatically created when you select the Overwrite option, so that critical data will not be lost.

NOTE: The Backup feature protects the data for only one Write operation. The next time you Overwrite the file, the original data is lost.

Printer. In the **Type** field, specify a parallel printer for the trend printout. Enter **L** for printers compatible with the HP LaserJet II; **E** for printers compatible with the Epson FX 286; or **N** if you do not have a printer attached to LPT1.

In the **Mode** field, enter **A** (Automatic) for an automatic printout of the live trend screen every hour on the hour, or **M** (Manual) to print the trend with the ALT+P command.

File Drive and Path. If you want to write to a drive or path other than C:\COLLECT\DATA, enter a drive and path (for example, A:\COLLECT). If the path does not exist, the Collect program will create it.

Estimate the number of File Writes your disk can handle by checking file size with the VIEW FILES function.

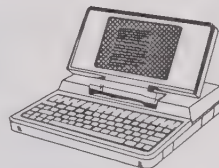
Exiting

To exit the DEFINE FILES AND DISPLAYS screen and return to the Collect Main Menu, press ESC.

If you have specified Overwrite for any file, you see one of these messages: "Please confirm: overwrite one or more files; no backup. Enter Y (Yes) or N (No)" or "Please confirm: overwrite one or more files; back up all files (we recommend you copy old backup files to new directory to prevent data loss). Enter Y (Yes) or N (No)."

When you overwrite without making a backup copy, existing data is lost. When you overwrite and make a backup of existing files, you lose data in the existing backup files. Therefore, you should make it a practice to copy data to a different directory (for example, hard disk to floppy) each time you turn File Write off.

Displaying the data



Section 3

At the Main Menu, select the on-line function **DISPLAY DATA AND GRAPHS** to view the file data in digital, bar graph or trend form. You see current data whether or not you have turned File Write on.

15:25:00 08/04/94		File Write ON ALT-S to Stop	
ID: RA AUTOCLAVE1 BL1234		DUALF	REF+122.009C
Name: TEST.prm			
Row 100		Row 200	Row 300
01 PTMP-1	122.2C	01 IFB-PT1	1.318
02 PTMP-2	122.2C	02 IFB-PT2	1.318
03 PTMP-3	122.1C	03 IFB-PT3	1.288
04 PTMP-4	122.1C	04 IFB-PT4	1.288
05 PTMP-5	122.1C	05 IFB-PT5	1.288
06 PTMP-6	122.2C	06 IFB-PT6	1.318
07 PTMP-7	122.1C	07 IFB-PT7	1.288
08 PTMP-8	122.2C	08 IFB-PT8	1.318
09 PTMP-9	122.1C	09 IFB-PT9	1.288
10 PTMP-10	122.2C	10 IFB-PT10	1.318
11 PTMP-11	122.1C	11 IFB-PT11	1.288
12 PTMP-12	122.2C	12 IFB-PT12	1.318
13 Ch 113		13 Ch 213	
14 GRP MAX	122.2C	14 Ch 214	
15 GRP MIN	122.1C	15 Ch 215	
16 DELTA T	0.1C	16 Ch 216	
01 AFB-PT1	5.61	01 AFB-PT1	5.61
02 AFB-PT2	5.61	02 AFB-PT2	5.61
03 AFB-PT3	5.61	03 AFB-PT3	5.61
04 AFB-PT4	5.96	04 AFB-PT4	5.96
05 AFB-PT5	5.76	05 AFB-PT5	5.76
06 AFB-PT6	5.75	06 AFB-PT6	5.75
07 AFB-PT7	5.63	07 AFB-PT7	5.63
08 AFB-PT8	5.66	08 AFB-PT8	5.66
09 AFB-PT9	5.52	09 AFB-PT9	5.52
10 AFB-PT10	5.54	10 AFB-PT10	5.54
11 AFB-PT11	5.65	11 AFB-PT11	5.65
12 AFB-PT12	5.59	12 AFB-PT12	5.59
13 Ch 313		13 Ch 313	
14 CYCLE TM	13.6M	14 CYCLE TM	13.6M
15 EXP TIME	3.6M	15 EXP TIME	3.6M
16 MIN-F0	5.52	16 MIN-F0	5.52
<PgUp/PgDn> Next/Previous file		<Alt-T> Live trend	
<F1> Help		<Alt-B> Bar graph	
<Esc> Exit			
Waiting for Report		Relay 00000000	

Digital display

The File 1 digital display appears. As soon as Collect has had time to read the report buffer at the Kaye hardware, the time and date of the data collection, title, channel labels (channel number if there is no label) and current values with engineering units appear. At the upper left above the data is the Test ID information (if you are collecting data from a Validator and you specified a Test Identifier), and at the upper right above the data is the file name. If there is an Intelligent Probe connected, the term "REF" and the

probe value appear between the Test ID information and the file name. As the program collects data, you see the message "Reading data" on the prompt line. The display updates with the latest values every 10 seconds.

Values are shown on screen with commas instead of decimal points if the Kaye hardware is programmed to print and transmit data in European format.

Channels in alarm are indicated with an asterisk.

To cycle through the File 1, File 2, File 3 and Summary displays, press PG DN and PG UP.

Summary

The summary screen displays data from all Kaye hardware channels assigned to a file.

Access this screen with PG DN or PG UP at a digital display.

```

15:25:30                               File Write ON  ALT-S to Stop
08/04/94

                                128 Channel Summary
REF*122.149C  ID: RA AUTOCLAVE1 BL1234  D4VALP
#-----100-----200-----300-----400-----500-----600-----700-----800#
01 122.2      1.318      6.27      0.00
02 122.2      1.318      6.27      0.00
03 122.2      1.318      6.29      0.00
04 122.2      1.318      6.62      0.00
05 122.1      1.298      6.40      0.00
06 122.2      1.318      6.41      0.00
07 122.2      1.318      6.29      0.00
08 122.2      1.318      6.32      1.00
09 122.1      1.288      6.18      1.00
10 122.2      1.318      6.20
11 122.2      1.318      6.31
12 122.2      1.318      6.25
13
14 122.2      14.1
15 122.1      4.1
16 0.1        6.18
#-----#

<PgUp/PgDn> Next/Previous  <Alt-T> Live trend  <Alt-B> Bar graph
<F1> Help  <Esc> Exit
Executed

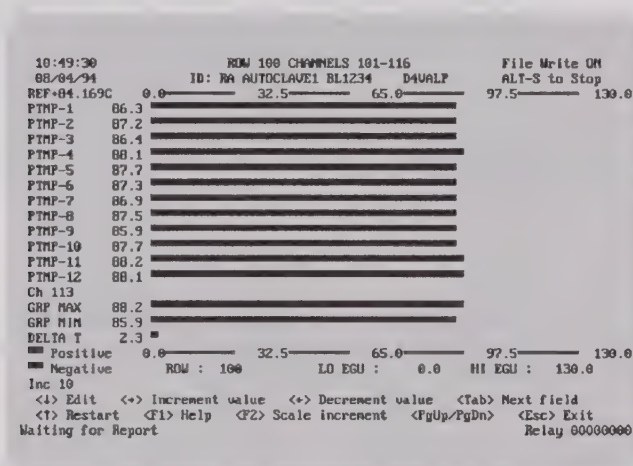
```

If there is an Intelligent Probe connected, the term "REF" and the probe value appear at the top left beneath the date.

To exit to the Main Menu, press ESC.

Bar graphs

To call up a bar graph display of one row of channel data, press ALT+B. By default, you access Row 100.



If there is no label at a channel, the channel number is displayed at the left of the graph. The digital values are shown in the next column. If there is a probe attached, the term "REF" and the probe value appear under the date.

Editing the graph

The three fields below the bar graph let you select a different channel row and rescale the graph.

Press ↓ to place the cursor at the Row field. To increment the channel row, press →, and to decrement the row, press ←. For example, if you access a bar graph of Row 100 and you want to view Row 300, press ↓ and then → twice.

You can also use PG DN and PG UP to increment and decrement the channel row.

Press TAB to move from one field to another.

To increment or decrement the LO and HI EGU's by 10, press → or ←.

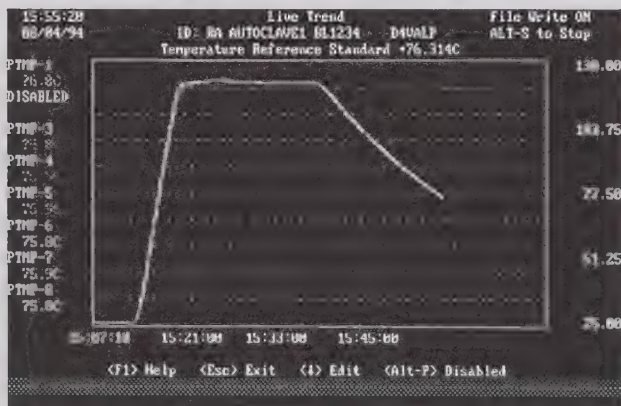
The graph can show data over a range of ± 65535 . To change the size of the rescale increment from 10 to 100 or 1000, place the cursor on the LO or HI EGU field and press F2 once or twice.

To view the graph of the new channel row with new LO and HI EGU specifications, press ↑.

To exit to the previous digital display, press ESC.

Trends

To call up a one-hour live trend display of values at up to eight channels, plus the probe reading if an Intelligent Probe is attached, press ALT+T at a digital display.



By default, values at Channels 101-108 appear on the graph. New values are graphed every 10 seconds.

The X axis of the chart is time. The Collect time stamp at the far left of the X axis indicates the start of data collection. As values are collected, time stamps appear every 12 minutes.

The Y axis is determined by the Low and High EGU's. When the trend first appears, Low is 0 and High is 130. You can specify new Low and High values, and Collect automatically calculates the intermediate values on the axis.

The channel labels for the trends are displayed at the left of the chart, with the current values showing underneath, in the same color as the trend line. If there are no labels programmed, the channel numbers appear. You can change the channel selections.

If the probe value is being trended on a color monitor, the line appears in bright white. If you are looking at the chart on a monochrome screen, each trend line is identified with a symbol. The symbols appear to the right of the channel value.

Editing the trend

Press ↓ for the Trend Edit screen, where you select different channels for the trend and change the Low and High EGU's. When the screen appears, the cursor is on the first channel field. Press → or ← to increment or decrement the channel number. Press TAB to move to the next field, or SHIFT TAB for the previous field.

TREND EDIT MODE			
Channel Definition			
Label :	PTMP-1	PTMP-2	PTMP-3
Address: +	101	102	103
Label :	PTMP-5	PTMP-6	GRP MAX
Address:	105	106	114
			115
Scale increment		X	10.0
LO EGU	20.0	HI EGU	130.0
XAVE			
<Tab>Next field <Shift-Tab>Prev field <+>Increment <->Decrement <Esc>Exit <↓>Down <↑>Up <F2>Scale increment			

To disable a channel, use → or ← to access the five asterisks (*****) value (the address below 101 or above 816). The word "DISABLED" appears on the trend in place of a label.

At the Low and High EGU fields, press → to increment or ← to decrement the values. By default, the increment is 10.0. You can press F2 to change the size of the increment to 0.1, 1.0, 100.0 or 1000.0. The minimum Low EGU is -300 and the maximum HI EGU is 1000.

Press ESC to return to the Live Trend and save your edits.

Collect stores and trends the last 360 data samples for the channels you select (one hour's worth). Data is trended whether or not you are at the trend display. When you select a different channel, the trend line for the original channel disappears and a trend line for the new channel begins at the appropriate point on the X axis.

Printing the trend

If your computer is connected to an HP LaserJet II or compatible, or an Epson FX286 or compatible printer, and you defined your printer at the DEFINE FILES AND DISPLAYS screen, you can print the trend.

NOTE: You must be at the Trend display to print, in automatic or manual mode.

If you specified Automatic print mode, the trend will print once every hour on the hour. Note that in Automatic mode, you see "<Alt-P> Enabled" at the bottom of the screen, and you can also print on demand with ALT+P. A message tells you when the next Autoprint is scheduled.

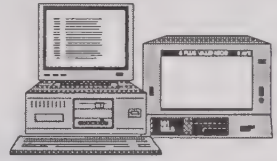
You see "<Alt-P> Disabled" until the screen is printed and the program has collected another report from the data acquisition unit. This protects you from issuing multiple print commands by mistake.

If you specified Manual mode, generate a printout with ALT+P.

If Collect is not configured for a parallel printer, "<Alt-P> Disabled" appears at the bottom of the screen.

While a trend prints, which may take 30 seconds or so, the software does not collect reports from the Kaye hardware. However, because the buffer holds 10 reports, no data is lost.

Viewing the files



Section 4

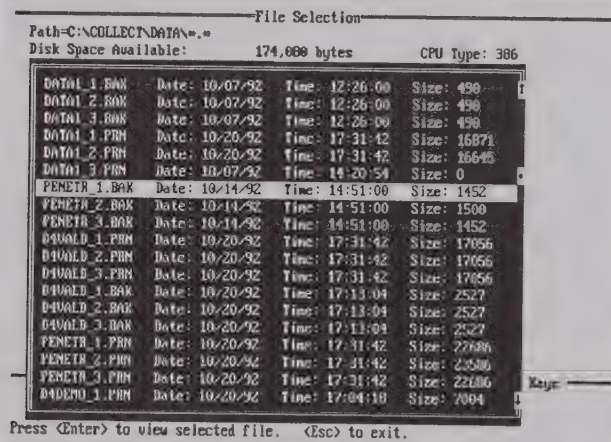
How the files are written

When you press ALT+S to turn File Write ON, Collect writes data to files according to the Interval and/or Relay specifications you made at the DEFINE FILES AND DISPLAYS screen. The files are written in the format you selected (EX, L3, L2 or CS) to the drive and path you specified (or to the default C:\COLLECT\DATA). If your version of the Programmer has a Specify Test Identifier field, and you entered information there, it is also included.

When you turn on File Write, data is appended to the existing file, unless you specified Overwrite. In this case, files are overwritten and backup files are automatically created to hold the old data, unless you specified no Backup. When you specify Overwrite, the program reminds you to copy your old backup files to another directory to prevent data loss.

The VIEW FILES directory

For a directory of files, select VIEW FILES from the Collect main menu.



Path=C:\COLLECT\DATA*.*			
Disk Space Available:		174,000 bytes	CPU Type: 386
DATA1_1.BAK	Date: 10/07/92	Time: 12:26:00	Size: 490
DATA1_2.BAK	Date: 10/07/92	Time: 12:26:00	Size: 490
DATA1_3.BAK	Date: 10/07/92	Time: 12:26:00	Size: 490
DATA1_1.PRM	Date: 10/20/92	Time: 17:31:42	Size: 16871
DATA1_2.PRM	Date: 10/20/92	Time: 17:31:42	Size: 16645
DATA1_3.PRM	Date: 10/07/92	Time: 14:20:54	Size: 0
PENETR_1.BAK	Date: 10/14/92	Time: 14:51:00	Size: 1452
PENETR_2.BAK	Date: 10/14/92	Time: 14:51:00	Size: 1500
PENETR_3.BAK	Date: 10/14/92	Time: 14:51:00	Size: 1452
DUALD_1.PRM	Date: 10/20/92	Time: 17:31:42	Size: 17056
DUALD_2.PRM	Date: 10/20/92	Time: 17:31:42	Size: 17056
DUALD_3.PRM	Date: 10/20/92	Time: 17:31:42	Size: 17056
DUALD_1.BAK	Date: 10/20/92	Time: 17:13:04	Size: 2527
DUALD_2.BAK	Date: 10/20/92	Time: 17:13:04	Size: 2527
DUALD_3.BAK	Date: 10/20/92	Time: 17:13:04	Size: 2527
PENETR_1.PRM	Date: 10/20/92	Time: 17:31:42	Size: 22606
PENETR_2.PRM	Date: 10/20/92	Time: 17:31:42	Size: 22606
PENETR_3.PRM	Date: 10/20/92	Time: 17:31:42	Size: 22606
DADENO_1.PRM	Date: 10/20/92	Time: 17:04:18	Size: 7004

Press <Enter> to view selected file. <Esc> to exit.

If you specified Lotus 2 file format, the file directory will look like the example above, where three subfiles have been created for each file defined. Collect does this to accommodate Lotus 1-2-3, v. 2.X data format. For the file PENETR, the program created PENETR_1, PENETR_2 and PENETR_3. Each of the subfiles has a backup: PENETR_1.BAK, PENETR_2.BAK and PENETR_3.BAK.

The files are shown with the time and date last written, and size of each file. Use this directory to estimate how many times you can append to the file without running out of disk space.

If you are writing to your hard disk, you should make it standard procedure to copy the files to a floppy disk every time you stop Collect. Then delete the files from the hard disk to avoid running out of disk space.

Use ↑, ↓, PG UP, PG DN, HOME and END to move through the directory.

VIEW screen

To view a file in spreadsheet format, highlight the file and press ENTER.

File: C:\COLLECT\DATA\PEMETH_1.PPM Top Line 1

VIEW

Kaye Instruments, Inc.
Sample Penetration Report/File

"JD AUTOCLAVE1 10/14/92 D4DEMOP"

"TIME"	"DATE"	"PTMP-1"	"PTMP-2"	"PTMP-3"	"PTMP-4"	"PTMP-5"	"PTMP-6"
"14:04:10"	"10/14/92"	85.9	86.7	88.4	90.2	91.9	93.6
"14:04:30"	"10/14/92"	85.0	86.7	88.4	90.2	91.9	93.6
"14:05:00"	"10/14/92"	86.5	88.1	89.8	91.5	93.1	94.8
"14:05:30"	"10/14/92"	90.7	92.2	93.7	95.1	96.6	98.1
"14:06:00"	"10/14/92"	94.9	96.2	97.5	98.7	100.0	101.3
"14:06:30"	"10/14/92"	98.9	100.0	101.1	102.2	103.3	104.4
"14:07:00"	"10/14/92"	102.3	103.2	104.2	105.1	106.0	107.0
"14:07:30"	"10/14/92"	105.0	105.9	106.7	107.5	108.3	109.1
"14:08:00"	"10/14/92"	107.4	108.2	108.9	109.5	110.2	110.9
"14:08:30"	"10/14/92"	109.4	110.1	110.7	111.3	111.9	112.5
"14:09:00"	"10/14/92"	111.3	111.8	112.4	112.8	113.3	113.9
"14:09:30"	"10/14/92"	112.8	113.3	113.8	114.1	114.6	115.1
"14:10:00"	"10/14/92"	114.2	114.6	115.1	115.4	115.7	116.2
"14:10:30"	"10/14/92"	115.4	115.8	116.2	116.4	116.7	117.1
"14:11:00"	"10/14/92"	116.4	116.8	117.1	117.3	117.6	117.9

KAYE

<Tab> <Shift-Tab> <Esc> Scroll(↑) Scroll(↓) Scroll(↵) Scroll(⇐)

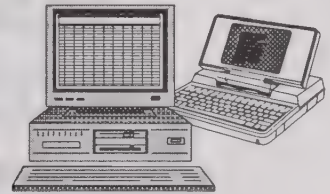
The file name is at the top left, and the title and subtitle on the first two lines of the file, as they will appear in your spreadsheet. If you entered test ID information, it appears on the third line. The quotes around the titles, test ID, channel labels, and time and date stamps are text separators that Collect inserts into the file. They will not appear when you bring the file into your spreadsheet. The words "TIME" and "DATE" and the labels will be correctly centered above the values on the spreadsheet.

If you have an Intelligent Probe on COM1, the probe value is included every time data is written. The term "Ref Std" and the probe serial number are the last column head in the file.

Use ↑, ↓, TAB and SHIFT TAB to scroll the data vertically and horizontally. PG UP and PG DN let you move from page to page of the spreadsheet. HOME and END take you to the beginning and end of the file.

Press ESC to exit to the file directory.

Importing to your spreadsheet



Section 5

Excel

To bring a Collect PRN file into Microsoft Excel 4.0 or 3.0, follow these steps:

- Choose File Open.
- Choose the Text button.
- Under Column delimiter, select Tab.
- Under File Origin, select DOS.
- Choose OK.
- In the Files box, select the document you want to open.
- Choose OK.

Lotus 1-2-3, v. 3.0 and higher

Position the cursor at the home cell, A1.

- Select File Import.
- Select Numbers as the Import format.
- At the prompt, enter or select the drive name, directory, and file name (for example, A:\COLLECT\D4VALD.PRN).

Lotus 1-2-3, v. 2.0 to 2.4

Remember that when Collect writes a file in Lotus 2 format, it creates a PRN subfile for each row of Kaye hardware data. When you move files into 1-2-3, be sure to move all the subfiles.

To bring a file into Lotus 2.0 to 2.4,

- Position the cursor at the home cell, A1.
- Select File Import.
- Select Numbers.
- Enter or select the drive, directory, and subfile name (for example, A:\COLLECT\PENETR_1.PRN).

Each subfile requires 18 columns on the spreadsheet. At the next empty cell, which is S1, import PENETR_2.PRN. At cell AK1, import PENETR_3.PRN.

You can use the 1-2-3 macro facility to create a macro for importing the files.

Importing a file in European format

To bring a file into your spreadsheet in European format, you must collect the data from the Kaye hardware in European format. At the Kaye Programmer, select Configuration, then US/Euro Data Format. Specify European for both Date and Value format.

Excel. The values in your Collect file will automatically be displayed in European format.

To see the date in European format, follow this sequence:

- Access the Windows Main group and select the Control Panel icon.
- Select the International icon.
- At the Country list box, select your country.
- In the Date Format area, choose Change.
- In the Short Date Format area, turn off Century (select 90 vs. 1990). Choose OK.

Lotus 1-2-3. Set up your spreadsheet before you import the file. Follow this sequence:

- Global
- Default
- Other
- International.

Then import the file as outlined above.

Appendix A. Sample File Write intervals

Table 1. 10, 20 or 30-second intervals

Interval	File Write On	Initial Time Stamp	2nd File Write	3rd File Write	4th File Write
10 seconds	08:29:56	08:30:00	08:30:10	08:30:20	08:30:30
10 seconds	08:30:04	08:30:10	08:30:20	08:30:30	08:30:40
10 seconds	08:30:17	08:30:20	08:30:30	08:30:40	08:30:50
10 seconds	08:30:21	08:30:30	08:30:40	08:30:50	08:31:00
10 seconds	08:30:32	08:30:40	08:30:50	08:31:00	08:31:10
10 seconds	08:30:49	08:30:50	08:31:00	08:31:10	08:31:20
20 seconds	08:29:56	08:30:00	08:30:20	08:30:40	08:31:00
20 seconds	08:30:04	08:30:10	08:30:20	08:30:40	08:31:00
20 seconds	08:30:17	08:30:20	08:30:40	08:31:00	08:31:20
20 seconds	08:30:21	08:30:30	08:30:40	08:31:00	08:31:20
20 seconds	08:30:32	08:30:40	08:31:00	08:31:20	08:31:40
20 seconds	08:30:49	08:30:50	08:31:00	08:31:20	08:31:40
30 seconds	08:29:56	08:30:00	08:30:30	08:31:00	08:31:30
30 seconds	08:30:04	08:30:10	08:30:30	08:31:00	08:31:30
30 seconds	08:30:17	08:30:20	08:30:30	08:31:00	08:31:30
30 seconds	08:30:21	08:30:30	08:31:00	08:31:30	08:32:00
30 seconds	08:30:32	08:30:40	08:31:00	08:31:30	08:32:00
30 seconds	08:30:49	08:30:50	08:31:00	08:31:30	08:32:00
00 seconds		Disabled			

Table 2. 01, 05, 10, 15, 20 or 30 Minute Intervals

Interval	File Write On	Initial Time Stamp	2nd File Write	3rd File Write	4th File Write
1 minute	12:01:02	12:01:10	12:02:00	12:03:00	12:04:00
5 minutes	12:01:08	12:01:10	12:05:00	12:10:00	12:15:00
10 minutes	12:01:03	12:01:10	12:10:00	12:20:00	12:30:00
15 minutes	12:01:09	12:01:10	12:15:00	12:30:00	12:45:00
20 minutes	12:01:01	12:01:10	12:20:00	12:40:00	13:00:00
30 minutes	12:01:07	12:01:10	12:30:00	13:00:00	13:30:00
00 minutes		Disabled			

Table 3. 01 to 23-hour intervals

Interval	File Write On	Initial Time Stamp	2nd File Write	3rd File Write	4th File Write
1 hour	12:01:02	12:01:10	13:00:00	14:00:00	15:00:00
5 hours	12:01:08	12:01:10	17:00:00	22:00:00	03:00:00
10 hours	12:01:03	12:01:10	22:00:00	08:00:00	18:00:00
15 hours	12:01:09	12:01:10	03:00:00	18:00:00	09:00:00
20 hours	12:01:01	12:01:10	08:00:00	04:00:00	00:00:00
00 hours		Disabled			

Appendix B. File Write conditions

<i>Interval</i>	<i>Relay</i>	<i>File Write</i>
0	0	None
0	41-48	Writes when relay turns On. Continues to write whenever relay goes from Off to On.
Programmed	0	Writes at specified interval until File Write is turned OFF.
Programmed	41-48	Writes when relay turns On. Will write at every specified interval if relay is On. Does not write if relay is Off.

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Kaye Instruments, Inc.
15 De Angelo Drive
Bedford, MA 01730
617-275-0300
FAX 617-275-9024